

## CLAIMS

1. A nitride semiconductor light emitting diode comprising:
  - an active layer comprising of a nitride semiconductor;
  - a reflecting mirror separated by a distance of approximately  $(k \cdot \lambda/2 + \lambda/4)/n$  from a center of the active layer, wherein
    - $\lambda$  is the wavelength of light projected from the active layer,
    - $n$  is the mean refractive index of an area between the active layer and the reflecting mirror, and
    - $k$  is an integer.
2. A nitride semiconductor light emitting diode as set forth in Claim 1, wherein the reflecting mirror is also an electrode for supplying electric current to the active layer.
3. A nitride semiconductor light emitting diode as set forth in Claim 1, further comprising a convex lens formed at a side opposite the reflecting mirror of the active layer.
4. A nitride semiconductor light emitting diode comprising:
  - a substrate;
  - an active layer comprising of a nitride semiconductor and being grown on the substrate;
  - a reflecting mirror laminated above the active layer, the reflecting mirror being separated by a distance of approximately  $(k \cdot \lambda/2 + \lambda/4)/n$  from a center of the active layer, wherein
    - $\lambda$  is the wavelength of light projected from the active layer,
    - $n$  is the mean refractive index of an area between the active layer and the reflecting mirror, and
    - $k$  is an integer.

- 5 A nitride semiconductor light emitting diode comprising:
- a substrate;
  - a nitride semiconductor grown on the substrate; the semiconductor being thick at a central portion thereof and thin at a peripheral portion thereof, and having an active layer being formed in the thick central portion thereof;
  - a first electrode being formed in an upper face of the thick central portion;
  - a second electrode being formed in an upper face of the thin peripheral portion.
- 6 A nitride semiconductor light emitting diode as set forth in Claim 5, wherein the second electrode surrounds the first electrode.
- 7 A nitride semiconductor light emitting diode as set forth in Claim 5, wherein a center of the first electrode and a center of the second electrode are positioned such that one is above the other if viewed from a direction perpendicular to the substrate.
- 8 A nitride semiconductor light emitting diode as set forth in Claim 5, wherein the profile of at least one of the first electrode and the second electrode forms a smooth continuum and contains no corners.
- 9 A nitride semiconductor light emitting diode as set forth in Claim 5, wherein the reflecting mirror is formed above the active layer of the thick central portion, the reflecting mirror being separated by a distance of approximately  $(k \cdot \lambda/2 + \lambda/4)/n$  from a center of the active layer, wherein
- $\lambda$  is the wavelength of light projected from the active layer,
  - $n$  is the mean refractive index of an area between the active layer and the reflecting mirror, and
  - $k$  is an integer.